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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JOSEPH MORELLI, KELLY WALKER and
C. CAYCE WARF, JR.

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Appeal 2011-000326
Application 10/680,703
Technology Center 1600

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Before DEMETRA J. MILLS, LORA M. GREEN, and
FRANCISCO C. PRATS, *Administrative Patent Judges*.

GREEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-16, 18, 19, 23-28, and 31-37.[1] We have jurisdiction under 35 U.S.C. § 6(b).

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[1] Claims 20-22 and 38-48 are also pending, but stand withdrawn from consideration (App. Br. 5).

STATEMENT OF THE CASE

Claim 1 is representative of the claims on appeal, and reads as follows:

> 1. A two-part disinfecting system comprising a first part and a second part adapted to be mixed to yield an aqueous acidic disinfecting composition, wherein the first part comprises a chlorite and the second part comprises an acid, and the first part, the second part, or both first and second parts further comprise a nitrogenous stabilizer and an oxidizable colorant present in the first part, the second part, or both the first and second parts wherein the oxidizable colorant consists of a drug and cosmetic colorant, an externally applied drug and cosmetic colorant, a food, drug, and cosmetic colorant or mixtures thereof, and wherein the system is substantially free of nonoxidizable colorants, and further wherein the system minimizes the production of chlorine dioxide formation as compared to if the nitrogenous stabilizer were absent.

The following grounds of rejection are before us for review:

I. Claims 1-16, 18, 19, 23-28, and 31-37 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, that is, as containing new matter.

II. Claims 1-6, 10-13, 18, 19, 26-28, 31-34, and 37 stand rejected under 35 U.S.C. 103(a) as being rendered obvious by the combination of Roozdar[2] and Morelli.[3]

III. Claims 1-6, 10-13, 31-35, and 37 stand rejected under 35 U.S.C. 103(a) as being rendered obvious by the combination of Pastore[4] and Morelli.

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[2] Roozdar, US 5,380,518, issued January 10,1995.

[3] Morelli et al., US 6,524,624 B1, issued February 25, 2003.

[4] Pastore, US 6,071,483, issued June 6, 2000.

IV. Claims 1-16, 18, 19, 23-28, and 31-37 stand rejected under 35 U.S.C. § 103(a) as being rendered obvious by Richter.[5]

We reverse Rejection I, but affirm Rejections II, III and IV.

ISSUE (Rejection I)

Has the Examiner established by a preponderance of the evidence that the disclosure as originally filed fails to provide support for the claim limitation of "wherein the system is substantially free of nonoxidizable colorants"?

FINDINGS OF FACT

FF1. According to the Specification, "the present invention provides a two-part disinfecting system comprising a first part and a second part adapted to be combined to yield an aqueous disinfecting composition" (Spec. 2-3). The Specification further teaches that "[t]he first part, the second part, or both the first and second parts may further and optionally comprise one or more colorants" (*id.* at 3).

FF2. The Specification teaches:

> The optional oxidizable colorant of the second part is a colorant that undergoes color loss upon contact with the acidified chlorite disinfectants. Such colorants are typically soluble in vehicles that may be used as carriers for the second part, including (but not limited to) water, alcohol, glycerin and/or oil. In the practice of this invention, either a single oxidizable colorant, or a mixture of two or more oxidizable colorants, may be present in the second part. The amount of oxidizable colorant present in the second part is an amount that,

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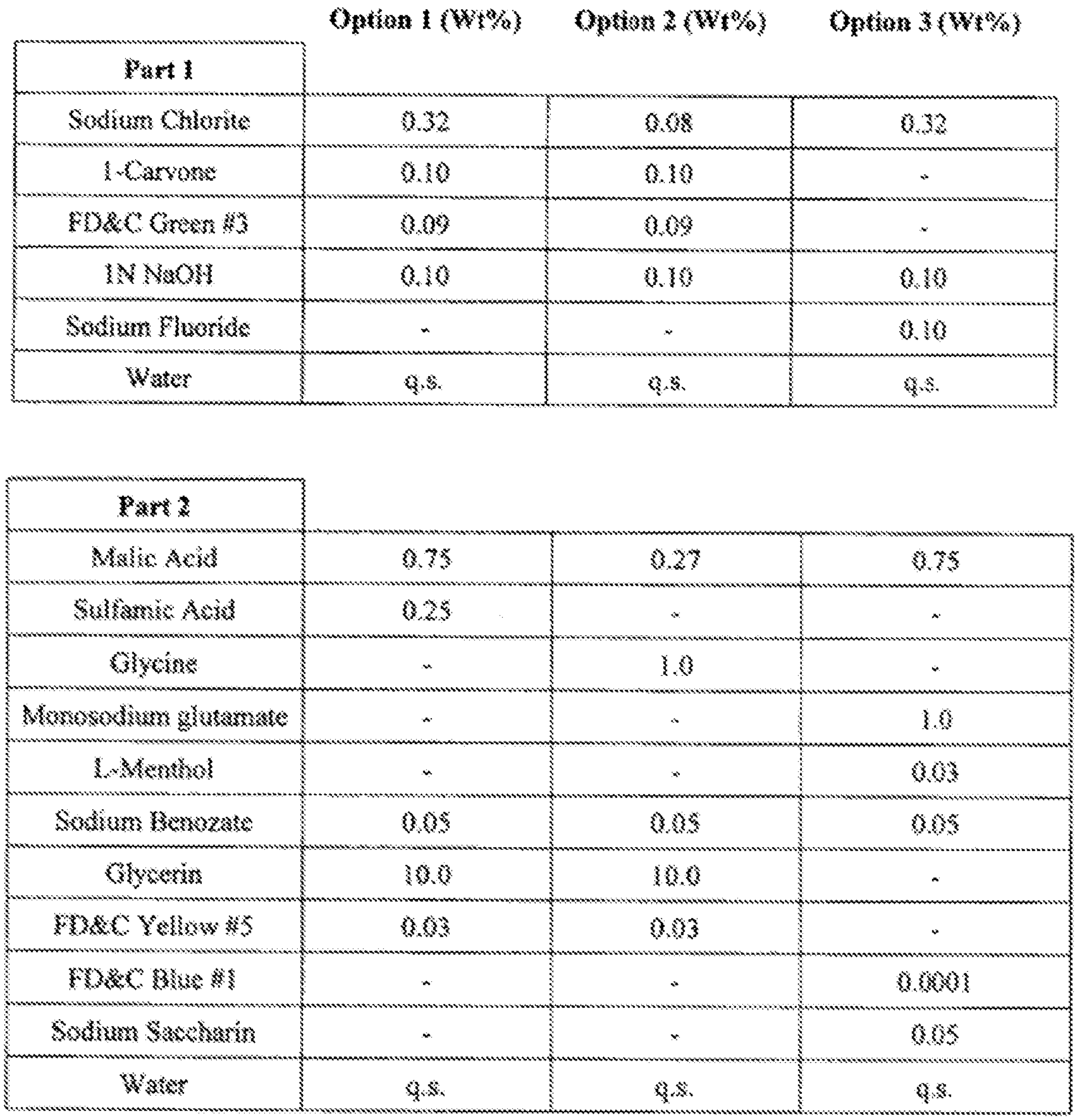
[5] Richter et al., US 6,379,685 B1, issued April 30, 2002.

> upon combination with the first part, will impart the desired color and/or color intensity to the disinfecting composition.

(*Id.* at 7.)

FF3. The Specification provides the following representative compositions:



Part 1	**Option 1 (Wt%)**	**Option 2 (Wt%)**	**Option 3 (Wt%)**
Sodium Chlorite	0.32	0.08	0.32
l-Carvone	0.10	0.10	-
FD&C Green #3	0.09	0.09	-
1N NaOH	0.10	0.10	0.10
Sodium Fluoride	-	-	0.10
Water	q.s.	q.s.	q.s.

Part 2			
Malic Acid	0.75	0.27	0.75
Sulfamic Acid	0.25	-	-
Glycine	-	1.0	-
Monosodium glutamate	-	-	1.0
L-Menthol	-	-	0.03
Sodium Benozate	0.05	0.05	0.05
Glycerin	10.0	10.0	-
FD&C Yellow #5	0.03	0.03	-
FD&C Blue #1	-	-	0.0001
Sodium Saccharin	-	-	0.05
Water	q.s.	q.s.	q.s.

(*Id.* at 14-15.)

FF4. Example 2 looked at the colorant effect on chlorite consumption (*id.* at 21-22), and Example 5 looked at the effect of nitrogenous stabilizers on color consumption (*id.* at 24-25).

FF5. The Examiner's statement of Rejection I is found at pages 3-6 of the Answer.

FF6. The Examiner finds that "'wherein the system is substantially free of nonoxidizable colorants' (present claim 1) is a concept that was not present in the specification as originally filed" (Ans. 4).

FF7. The Examiner acknowledges that the Specification teaches the use of oxidizable colorants (*id.* at 4-5), but does not find that disclosure to provide support for a system that is substantially free of nonoxidizable colorants, stating that "[t]here is no recitation in the instant specification of a nonoxidizable colorant" (*id.* at 5).

PRINCIPLES OF LAW

As stated in *Ariad Pharms., Inc. v. Eli Lilly and Co.,*

> [t]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.... The term "possession," however, has never been very enlightening. It implies that as long as one can produce records documenting a written description of a claimed invention, one can show possession. But the hallmark of written description is disclosure. Thus, "possession as shown in the disclosure" is a more complete formulation. Yet whatever the specific articulation, the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention

> understandable to that skilled artisan and show that the inventor actually invented the invention claimed.

598 F. 3d 1336, 1351 (Fed. Cir. 2010) (*en banc*).

With respect to whether a negative claim limitation complies with the written description requirement, the critical question is whether the negative claim limitation introduces a new concept. *Ex parte Grasselli,* 231 USPQ 393, 394 (Bd. App. 1983) (holding that the negative claim limitation "said catalyst being free of uranium and the combination of vanadium and phosphorous" in a process claim introduced new concepts because, *inter alia,* "the express exclusion of certain elements implies the permissible inclusion of all other elements not so expressly excluded"), aff'd mem., 738 F.2d 453 (Fed. Cir. 1984).

ANALYSIS

Appellants argue that the Specification provides the inclusion of oxidizable colorants and compositions including such colorants (*see* App. Br. 15). Appellants assert further that the Specification is replete with color stability data, and Examples containing only an oxidizable colorant.

We agree with Appellants. The Examiner does not reasonably articulate why an ordinarily skilled artisan would fail to readily understand that Examples not containing a nonoxidizable colorant provided for in the Specification, as filed, would not reasonably convey that Appellants were in possession of a two-part disinfecting system wherein the system is substantially free of nonoxidizable colorants.

It follows that the Examiner has not carried the burden of supplying a sufficient factual basis to support a conclusion that the negative limitations in question introduce new concepts into the present Application disclosure. *See In re Alton,* 76 F.3d at 1175; *see also In re Oetiker,* 977 F.2d 1443, 1445 (Fed. Cir. 1992) ("the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability").

CONCLUSION OF LAW

We conclude that the Examiner has not established by a preponderance of the evidence that the disclosure as originally filed fails to provide support for the claim limitation of "wherein the system is substantially free of nonoxidizable colorants." We thus reverse the rejection of claims 1-16, 18, 19, 23-28, and 31-37 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

PRINCIPLES OF LAW (ISSUES II-IV)

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

> If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id., at 417. In determining whether obviousness is established by combining the teachings of the prior art, "the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). In addition, a reference disclosure is not limited only to its preferred embodiments, but is available for all that it discloses and suggests to one of ordinary skill in the art. *See In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976).

ISSUES (Rejection II)

Has the Examiner established by a preponderance of the evidence that the combination of Roozdar and Morelli renders obvious the two-part disinfecting system of claim 1?

FINDINGS OF FACT

FF8. The Examiner's statement of Rejection II is found at pages 7-9 of the Answer. As Appellants do not argue the claims separately, we focus our analysis on claim 1, and claims 2-6, 10-13, 18, 19, 26-28, 31-34, and 37 stand or fall with that claim. *See* 37 C.F.R. § 41.37(c)(1)(vii).

FF9. We adopt the Examiner's findings and conclusions as our own.

FF10. We also highlight the following facts.

FF11. Specifically, Roozdar

> relates to a method for maximizing the production of chlorine dioxide (ClO_2) disinfecting solution which method also preferably minimizes the amount of residual chlorite ion (ClO_2-). Preferably, the disinfecting solution can be used in a number of related industries, including the food, food

> processing, drinking water, pharmaceutical production and medical and dental related industries.

(Roozdar, col. 1, ll. 13-20.)

FF12. Morelli "relates to two-part disinfecting systems, as well as disinfecting compositions and methods for making and using the same, and in a particular embodiment to a two-part disinfecting system that, when mixed, yields a disinfecting composition having reduced chlorine dioxide generation and extended color longevity" (Morelli, col. 1, ll. 7-12).

FF13. According to Morelli:

> Acidified chlorite (AC) disinfectants are commonly two-part products having a first or "base" part containing a chlorite (such as sodium chlorite) and a second or "activator" part containing an acid activator. The AC disinfectant is formed upon mixing the first and second parts, and typically only in amounts sufficient for a given milking period. Depending upon the desired characteristics and/or intended use of the AC disinfectant, either the first or second part, or both parts, may contain one or more optional ingredients such as skin conditioners, healing agents, surfactants, thickeners, film-forming agents, and/or preservatives. Also, depending upon the two-part system, the AC disinfecting composition may be formed by simply mixing the first and second parts, often in approximately equal volumes, or may involve some additional dilution step before or after mixing.
>
> Color has proved to be an important attribute for teat disinfectants, allowing farmers to visually confirm that the disinfectant has been properly applied to the teat. This is particularly advantageous for confirming application to large herds when multiple farm workers are applying the disinfectant to many different animals. Unfortunately, many such colorants used to impart the color are subject to chemical degradation upon formation of the AC disinfectant. This leads to ineffective coloration as the disinfectant ages--that is, from the point in

> time following mixing of the first and second parts to form the AC disinfectant.

(*Id.* at col. 1, ll. 36-61.)

ANALYSIS

Appellants argue that the references teach away from the combination (App. Br. 18). Specifically, Appellants assert, "Roozdar aims to significantly *increase* the amount of chlorine dioxide that is produced to in turn minimize residual chlorite ion," whereas Morelli "aims to minimize the amount of chlorine dioxide formed" (*id.*).

Appellants' arguments are not convincing. As noted by the Examiner (Ans.7-8), both Roozdar and Morelli are drawn to a two-part disinfecting system. In addition, Morelli teaches the advantage of adding color, as well as teaching that it is common to add color to such disinfecting systems, even though the color may sometimes fade quickly (*see* FF13). Under the proper legal standard, a reference will teach away when it suggests that the developments flowing from its disclosures are unlikely to produce the objective of applicant's invention. "A statement that a particular combination is not a preferred embodiment does not teach away absent clear discouragement of that combination." *Syntex (USA) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1380 (Fed. Cir. 2005) (citations deleted). Thus, we agree with the Examiner that it would have been obvious to add an oxidizable colorant as taught by Morelli, to the disinfecting system of Roozdar in order to visualize where the disinfectant has been applied.

Appellants further assert that Roozdar does not mention a colorant, and provides no need for a colorant, and that addition of a colorant to Roozdar would result in rapid color loss (App. Br. 18).

As noted above, Morelli teaches that it is common and well known to add colorant to a two-part disinfecting system, such as that taught by Roozdar.

Appellants further argue that the "claims include the element that chlorine dioxide generation is minimized," and thus the skilled artisan "would not look to art teaching how to maximize chlorine dioxide formation (Roozdar) when formulating a composition aimed at minimizing generation of the dangerous gas" (App. Br. 18).

As noted by the Examiner (Ans. 20), claim 1 is not directed to minimizing chlorine dioxide, but recites '"wherein the system minimizes the production of chlorine dioxide formation as compared to if the nitrogenous stabilizer were absent."' As Roozdar teaches the use of a nitrogenous stabilizer (*see id.*), it would inherently function in the same manner as required by the claim.

CONCLUSION OF LAW

We conclude that the Examiner has established by a preponderance of the evidence that the combination of Roozdar and Morelli renders obvious the two-part disinfecting system of claim 1. We thus affirm the rejection of claim 1 under 35 U.S.C. § 103(a) as being rendered obvious by the combination of Roozdar and Morelli. As claims 2-6, 10-13, 18, 19, 26-28, 31-34, and 37 stand or fall with that claim, we affirm the rejection as to those claims as well.

ISSUE (Rejection III)

Has the Examiner established by a preponderance of the evidence that the combination of Pastore and Morelli renders obvious the two-part disinfecting system of claim 1?

FINDINGS OF FACT

FF14.The Examiner's statement of Rejection III is found at pages 9-11. As Appellants do not argue the claims separately, we focus our analysis on claim 1, and claims 2-6, 10-13, 31-35, and 37 stand or fall with that claim.

FF15. We adopt the Examiner's findings and conclusions as our own.

ANALYSIS

Appellants argue that as with respect to the rejection over Roozdar and Morelli, Pastore also teaches away from the combination, as "Pastore produces chlorine dioxide and produces it in such copious amounts that a vessel is required to neutralize the noxious gas" (App. Br. 20). Appellants assert further, that as noted above, Morelli wants to minimize the production of chlorine dioxide, and thus it was improper to combine Pastore with Morelli (*id.*).

Appellants further argue that the "claim 1 includes the element that chlorine dioxide generation is minimized," (App. Br. 20) and thus the skilled artisan "would not look to art teaching how to maximize chlorine dioxide formation (Roozdar) when formulating a composition aimed at minimizing generation of the dangerous gas" (*id.* at 18).

Appellants' arguments have been carefully considered, but are not found to be convincing for the reasons set forth above with respect to the rejection over the combination of Roozdar and Morelli.

CONCLUSION OF LAW

We conclude that the Examiner has established by a preponderance of the evidence that the combination of Pastore and Morelli renders obvious the two-part disinfecting system of claim 1. We thus affirm the rejection of claim 1 under 35 U.S.C. § 103(a) as being rendered obvious by the combination of Pastore and Morelli. As claims 2-6, 10-13, 31-35, and 37 stand or fall with that claim, we affirm the rejection as to those claims as well.

ISSUE (Rejection IV)

Has the Examiner established by a preponderance of the evidence that Richter renders obvious the two-part disinfecting system of claim 1?

FINDINGS OF FACT

FF16. The Examiner's statements of the Rejection IV may be found at pages 11-16. As Appellants do not argue the claims separately, we focus our analysis on claim 1, and claims 2-16, 18, 19, 23-28, and 31-37 stand or fall with that claim.

FF17. We adopt the Examiner's findings and conclusions as our own.

FF18. We also highlight the following facts.

FF19. Richter teaches "bovine teat dip composition that can be mixed using two parts, a simple chlorite solution and an acid or acidulant formulation, to form a stable, effective composition that can be used in routine dairy procedures" (Richter, col. 1, ll. 11-13).

FF20. Richter teaches that the composition may also contain a chromophore or colorant (*id.* at col. 9, ll. 12-19).

FF21. Richter also provides examples in which F, D & C Green #3 is used in the composition (*see, e.g., id.* at cols. 19-21, Examples III-V). As found by the Examiner (Ans. 13; *see also id.* at 22), and not disputed by Appellants, F, D & C Green #3 is an oxidizable colorant.

FF22. The Examiner further finds that Richter "does not describe or include any non-oxidizable colorants, thereby meeting the . . . recitation that the composition is substantially free of non-oxidizable colorant" (Ans.22).

ANALYSIS

Appellants argue that Richter cannot render obvious the claimed invention, as Richter fails "to disclose . . . the *absence* of nonoxidizable colorant" (App. Br. 22). Specifically, Appellants assert that while Richter "may teach *inclusion* of an oxidizable (fading) colorant, without excluding nonoxidizable colorants from the composition the value of the fading colorant is completely obscured thereby rendering inclusion of the fading colorant irrelevant" (*id.*).

Appellants' arguments are not convincing. As noted by the Examiner (FF22), and as discussed above (FF21), Richter provides examples in which only an oxidizable colorant is used, and thus meets the limitation of being "substantially free of nonoxidizable (non-fading) colorants."

CONCLUSION OF LAW

We conclude that the Examiner has established by a preponderance of the evidence that Richter renders obvious the two-part disinfecting system of claim 1. We thus affirm the rejection of claim 1 under 35 U.S.C. § 103(a) as being rendered obvious by Richter. As claims 2-16, 18, 19, 23-28, and 31-37 stand or fall with that claim, we affirm the rejection as to those claims as well.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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